

D + n - 
$${}^{3}$$
H +  $\gamma$   
D + p -  ${}^{3}$ He +  $\gamma$   
D + D -  ${}^{3}$ He + n  
D + D -  ${}^{4}$ He +  $\gamma$   
 ${}^{3}$ H + p -  ${}^{4}$ He +  $\gamma$   
 ${}^{3}$ He + n -  ${}^{3}$ H + p  
 ${}^{3}$ He + n -  ${}^{4}$ He +  $\gamma$   
 ${}^{3}$ He + D -  ${}^{4}$ He + n  
 ${}^{3}$ He + D -  ${}^{4}$ He + p  
 ${}^{3}$ He + D -  ${}^{4}$ He +  $\gamma$   
 ${}^{4}$ He +  ${}^{3}$ He -  ${}^{4}$ He +  $\gamma$   
 ${}^{4}$ He +  ${}^{3}$ He -  ${}^{7}$ Li +  $\gamma$   
 ${}^{4}$ He +  ${}^{3}$ He -  ${}^{7}$ Li +  $\gamma$   
 ${}^{6}$ Li + n -  ${}^{7}$ Li +  $\gamma$   
 ${}^{6}$ Li + p -  ${}^{7}$ Be +  $\gamma$   
 ${}^{7}$ Li + p -  ${}^{4}$ He +  $\gamma$   
 ${}^{7}$ Be + n -  ${}^{7}$ Li + p  
 ${}^{7}$ Be + e -  ${}^{7}$ Li +  $\gamma$   
= dim  $(\epsilon^{*})$  =  $N$ 

 $p + n - D + \gamma$  ( $\gamma$ : photo

$$|\psi
angle = egin{pmatrix} \psi_1 \ \psi_2 \ dots \ \psi_N \end{pmatrix}_\epsilon = egin{bmatrix} \psi_1 \ \psi_2 \ dots \ \psi_N \end{bmatrix} \cdot egin{bmatrix} |u_1
angle & |u_2
angle & \cdots & |u_N
angle \end{bmatrix}$$

$$\langle \phi | \psi \rangle = \begin{pmatrix} \begin{pmatrix} \phi_1 \\ \phi_2 \\ \vdots \\ \phi_N \end{pmatrix}_{\epsilon^*}, \begin{pmatrix} \psi_1 \\ \psi_2 \\ \vdots \\ \psi_N \end{pmatrix}_{\epsilon} \end{pmatrix} = \begin{bmatrix} \phi_1 & \phi_2 & \cdots & \phi_N \end{bmatrix} \cdot \begin{bmatrix} \psi_1 \\ \psi_2 \\ \vdots \\ \psi_N \end{bmatrix} = \sum_{n=1}^N \phi_n \cdot \psi_n$$

$$egin{aligned} \dim\left(\epsilon
ight) &= \dim\left(\epsilon^*
ight) = N\,, \ \left\langle \phi 
ight| &= \sum_{n=1}^N \phi_n \cdot \left\langle u_n 
ight|\,, \ \left| \psi 
ight
angle &= \sum_{n=1}^N \psi_n \cdot \left| u_n 
ight
angle \,, \ \left| \dim\left(\epsilon
ight) &= \dim\left(\epsilon^*
ight) = N\,, \ \left\langle \phi 
ight| &= \sum_{n=1}^N \phi_n \cdot \left\langle u_n 
ight|\,, \ \left| \psi 
ight
angle &= \sum_{n=1}^N \psi_n \cdot \left| u_n 
ight
angle \,, \end{aligned}$$

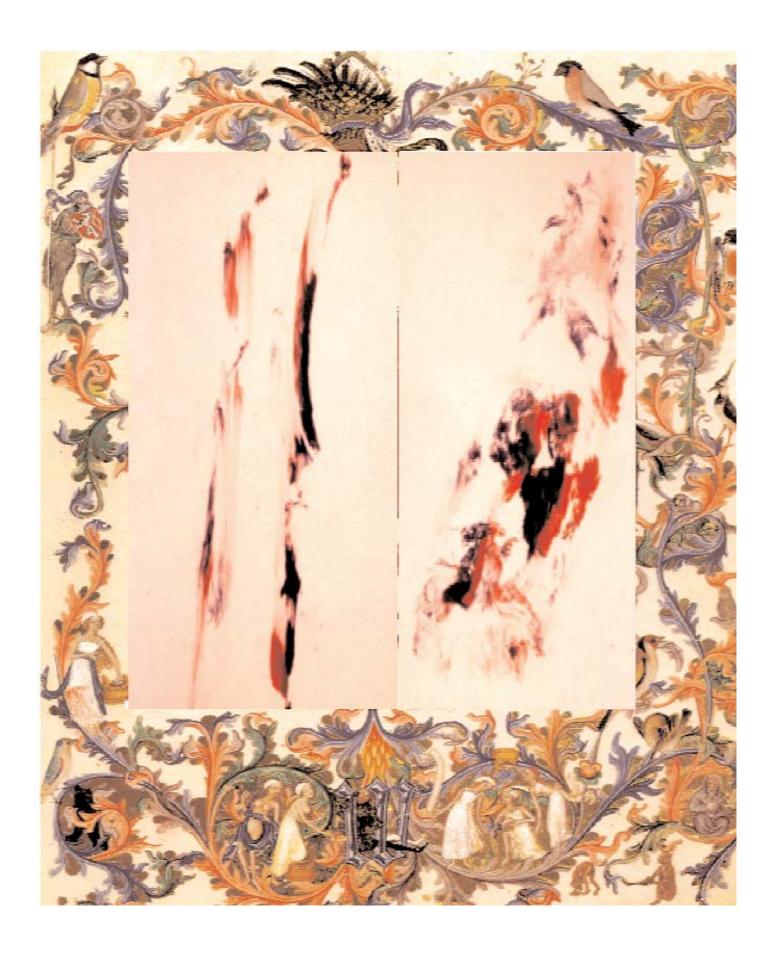


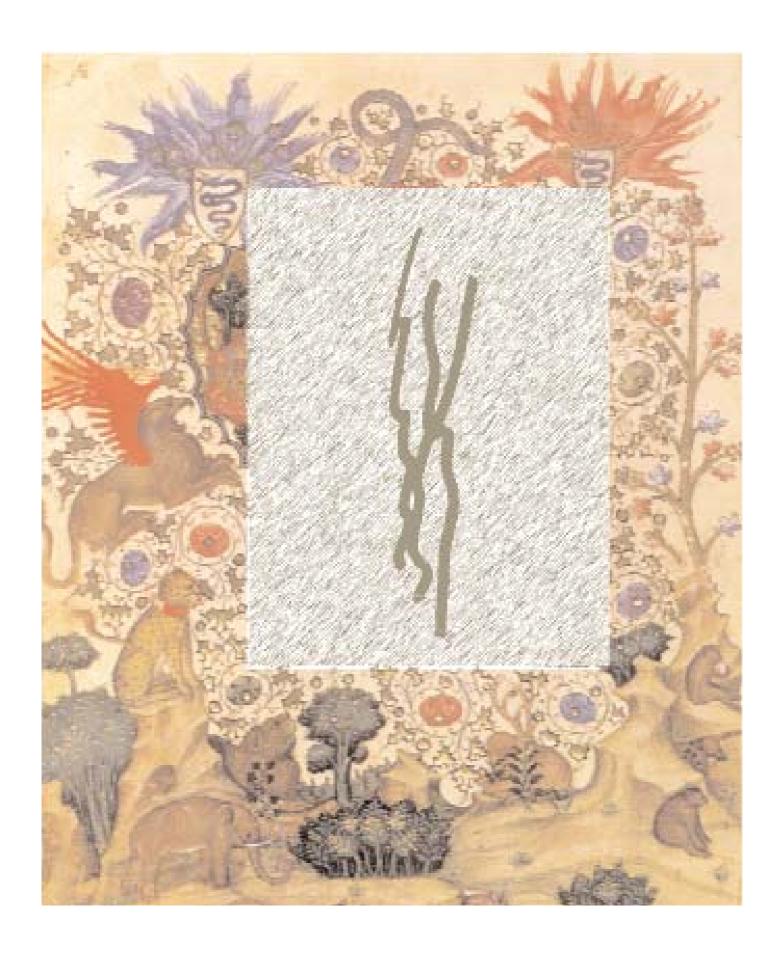




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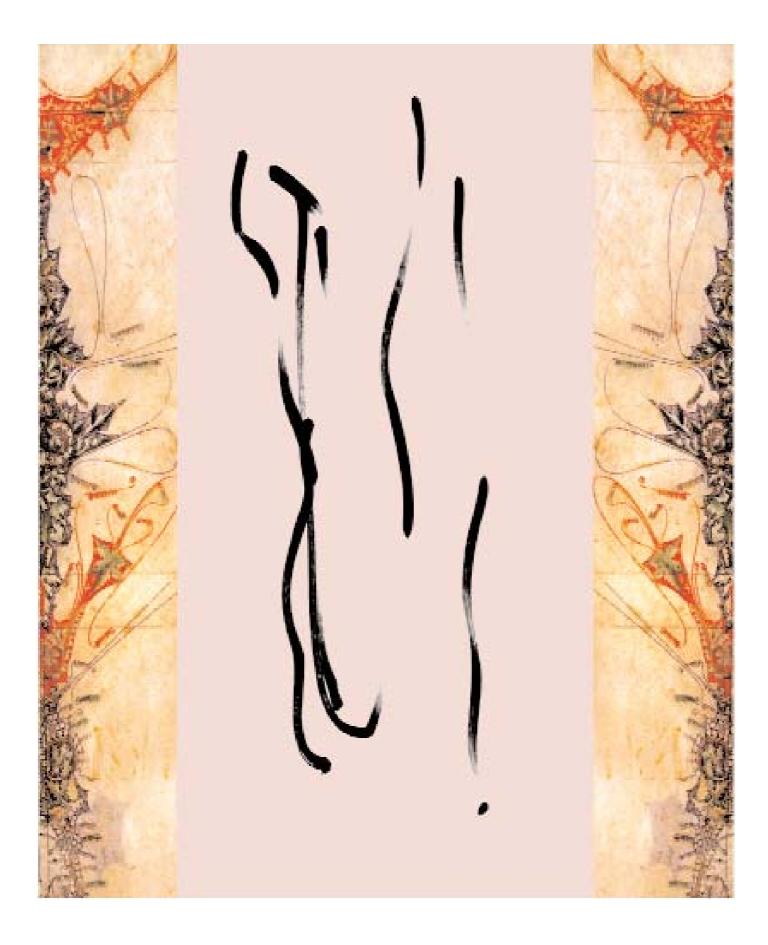


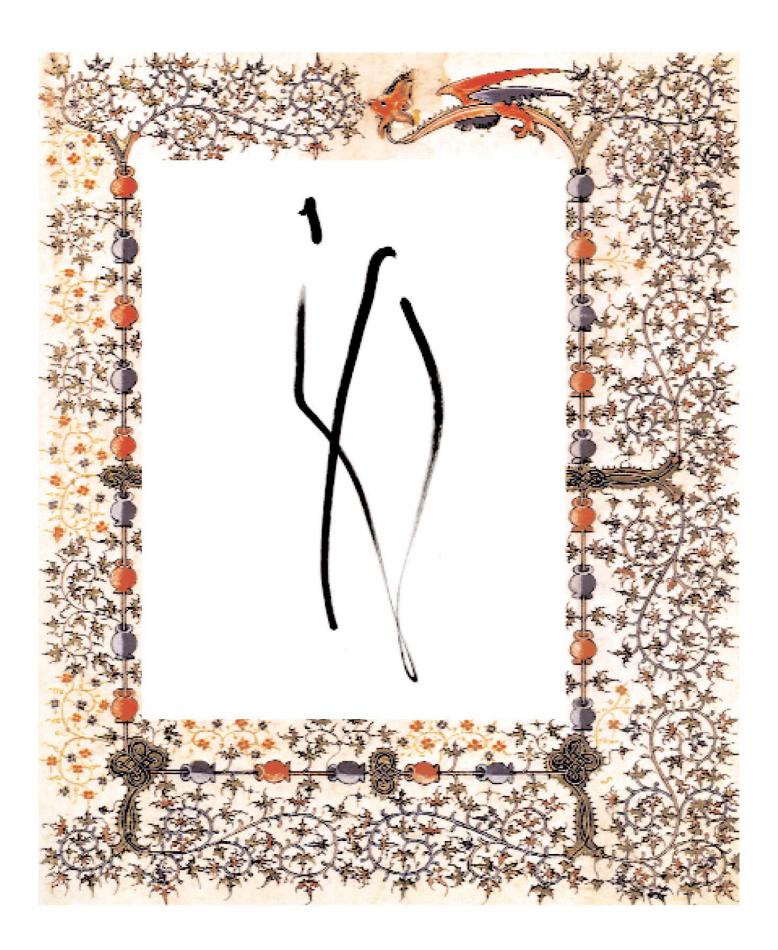


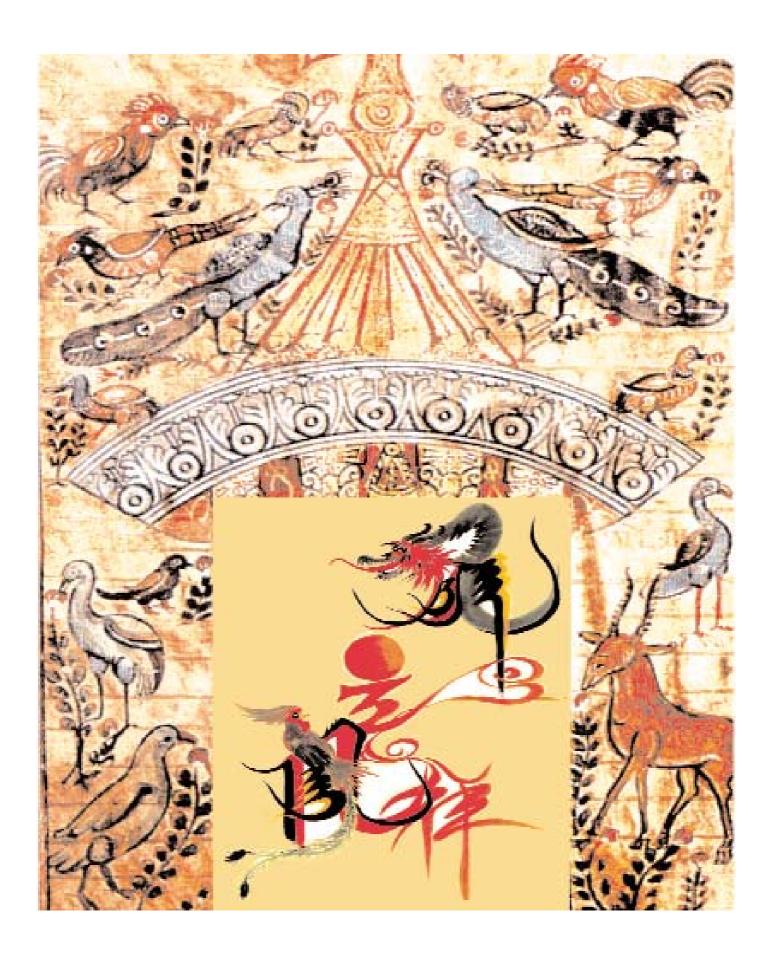








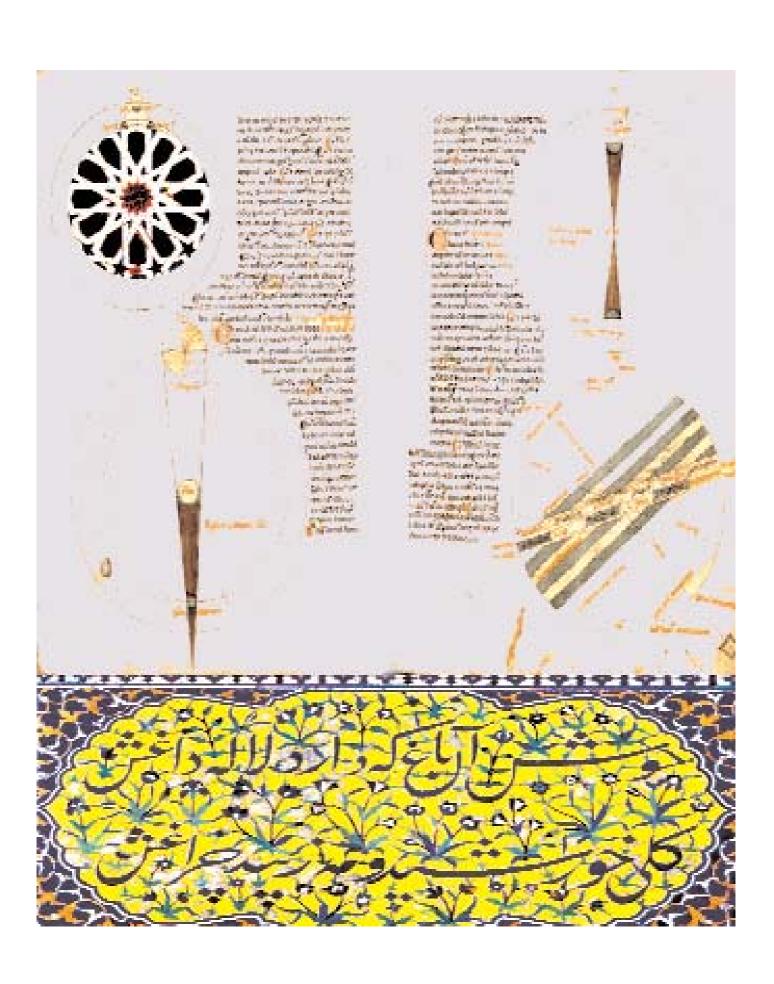




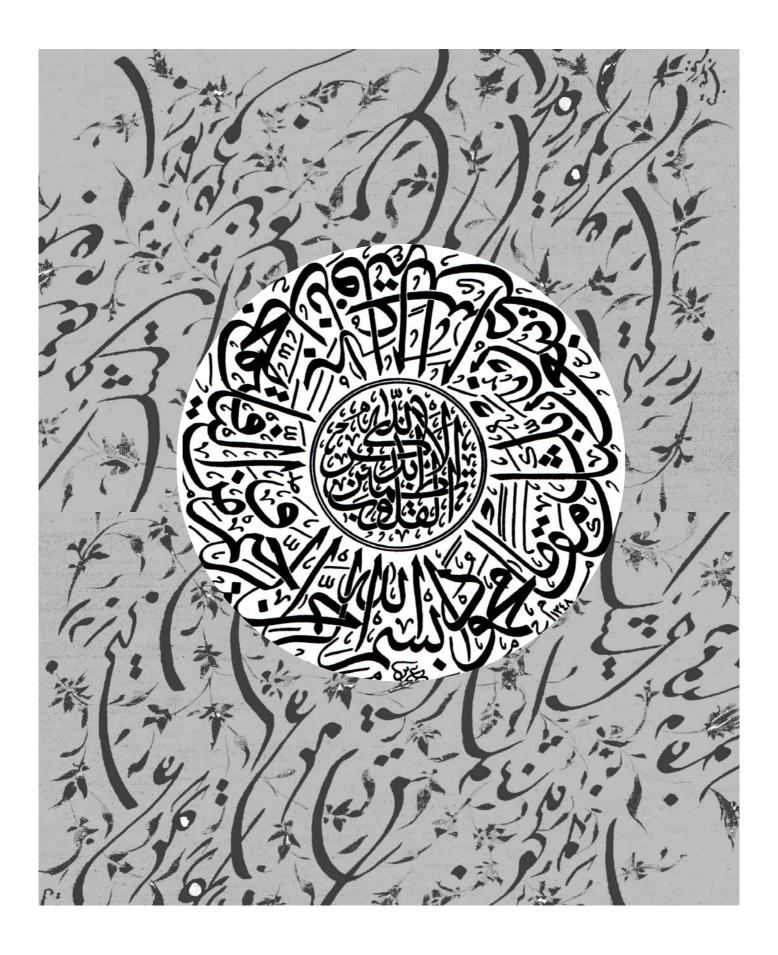




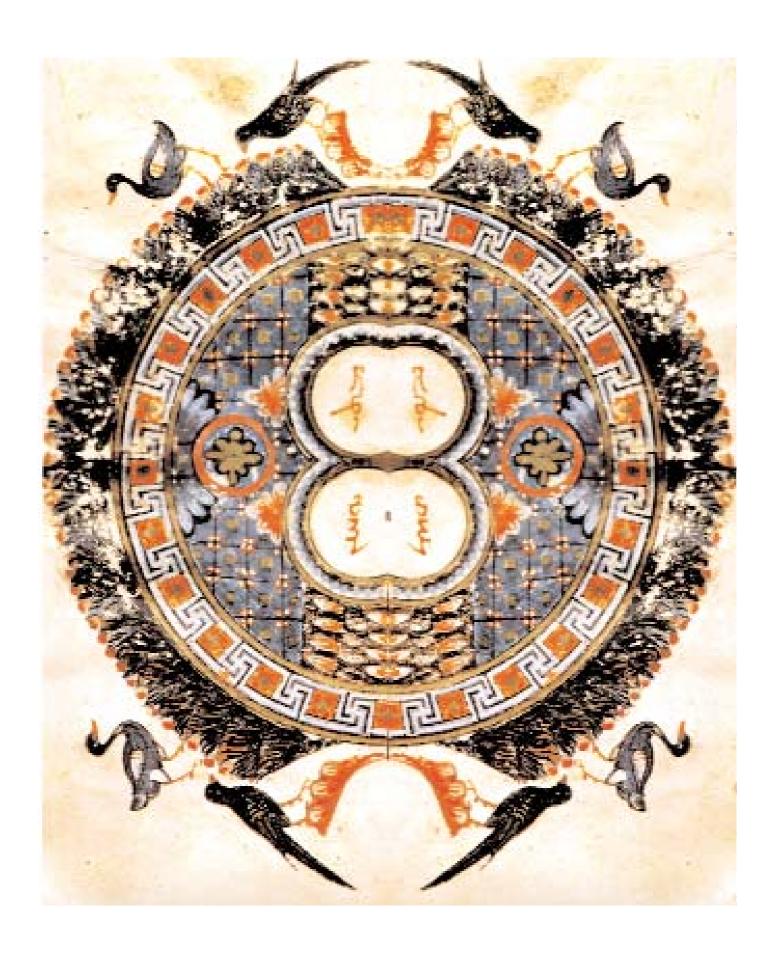












f(q,p)mmmm99.[-i.W(f),-i.W(g)] := -i.W({f,g}).{f,g} q²p² /6( Q²P² + QPQP + QP²Q + PQ²P + PQPQ + P²Q²).[W(q²),W(p²] et {x³,p³}=3q².3p²-0.QP = PQ + i :9 W(q²p²) = 96 ( Q²P² + QPQP + QP²Q + PQ²P + PQPQ + P²Q²) = 3 ( 3P²Q² + 6iPQ - 32²).f(q,p).[-i.W(f),-i.W(g)] = 9/6 ( Q²P² + QPQP + PQ²Q + PQ²P + PQPQ + P²Q²) = 3 ( 3P²Q² + 6iPQ - 32²).f(q,p).[-i.W(f),-i.W(g)] := -i.W({f,g}).f(g) q²p² /6( Q²P² + QPQP + PQ²Q + PQ²P + PQPQ + P2²).[W(q²),W(p²] et {x²,p²}=3q².3p²-0.QP = PQ + i:9 W(q²p²) = 9/6 ( Q²P² + QPQP + QP²Q + PQ²P + PQPQ + PQ²P + P  $\varphi_{Einstein} + \varphi_{Newtor}$  $=i\hbar\frac{d}{dt}\left|\psi(t)\right\rangle =\frac{\hat{\mathbf{p}}^{2}}{2m}\left|\psi(t)\right\rangle$  $0.8186 \cdot 10^{-13}$  $9.1083 \cdot 10^{-31}$ Trace  $(\hat{B}\hat{A})$  $|\langle \beta | \alpha, t \rangle|^2 = |$ II > || Trace  $(\hat{A}\hat{B})$ 1  $\parallel$ /E/m $\varphi_{RG}$ II 3/2).f(q,p). = P<sup>2</sup>Q<sup>2</sup>).[W(q<sup>3</sup>  $\{x^3, p^3\} = 3q^2.$ i.W(g)] := -i.W({f,g}).{f, P<sup>2</sup>Q<sup>2</sup>).[W(q<sup>3</sup> φ i.W(g)] := -i.W({f,g}).{f, -i.W(f),- $\{x^3, p^3\} = 3q^2.$ (2).f(q,p). Ψ W(q<sup>2</sup>p<sup>2</sup>) 9/6 (Q<sup>2</sup>p<sup>2</sup> W(q<sup>2</sup>p<sup>2</sup>) 9/6 (Q<sup>2</sup>P<sup>2</sup> ო ტ ო ტ p2-0.QP p2-0.QP g} q²p² Q²P² g} q<sup>2</sup>p<sup>2</sup> W(p<sup>3</sup>] , W(p³] Ŧ P<sup>2</sup>Q<sup>2</sup>)=  $P^2Q^2)=$ PQPQ PQPQ PQPQ +6iPQ QPQP QPQP QPQP QP<sup>2</sup>Q QP<sup>2</sup>Q PQ<sup>2</sup>P

70.00 日本の一の一つ 3 100 ĸ. 22.22 4 63 150 67.3 L QPQP + QP2Q | (1) | (1) | (1) | (2) | (3) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) | (4) 

 $\{x^a, p^a\} = 3q^2.3p^2.0.QP = PQ + i : 9 W(q^2p^2) = 9/6 (Q^2p^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2) = 3 (3P^2Q^2 + 6iPQ - 88 PQ + i : 9 W(q^2p^2) = 9/6 (Q^2p^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2) = 3 (3P^2Q^2 + 6iPQ - 3/2).3P^2Q^2 + 6iPQ - 3/2).f(q,p).[-i,W(f),-i,W(g)] := -i,W(f,g)\}.[f,g]$  $= 96 \ (Q^{2P^2} + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2) = 3 \ (3P^2Q^2 + 6iPQ - 3/2), if(q,p), [-i,w(f), -i,w(g)] := -i.W(f,g)), f(g,g) + Q^2P^2 + QPQP + QP^2Q + QP^2Q + PQ^2P + PQPQ + PQ^2P) = 96 \ (Q^{2P^2} + QPQP + QP^2Q + QP^2Q + PQ^2P) = 96 \ (Q^{2P^2} + QPQP + QP^2Q + PQ^2P) = 96 \ (Q^{2P^2} + QPQP + QP^2Q + PQ^2P) = 96 \ (Q^{2P^2} + f(q,p), [-i.W(f), -i.W(g)] := -i.W(f,g)), f(g,g) + Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + PQ^2Q + PQ^2P + PQPQ + PQ^2Q + PQ^2P + QPQP + QP^2Q + QPQP + QP^2Q + QPQP + QP^2Q + PQ^2P + QPQP + QP^2Q + QPQP + QPQ$  $9 \ P^2Q^2 + 18 \ i \ PQyP^2Q + PQ^2P + PQPQ + P^2Q^2) = 3 \ (3P^2Q^2 + 6iPQ - 3/2).f(q,p).[-i.W(f),-i.W(g)] := -i.W(\{f,g\}).\{f,g\} \ q^2p^2 + 6(Q^2P^2 + QPQP + QP$ 

 $= 2\delta hc^2 = 3,741 8310 \times 10^{-16} W$  $[\phi_1(r_1)\phi_2(r_2)\phi_2(r_3) +$  $e^{-i(\frac{E}{\hbar}t-\frac{Px}{\hbar}x)}$  $a_2|1,2,0,0,\cdots\rangle \equiv |1,1,0,$  $\hat{s}_{i}$  $\parallel$  $\|$  $\Psi(\vec{r},t)$  $f(\vec{r},t)$  $f(\vec{r})$  $^{\iota},\hat{p}_{j}$ 

+PQ2P+PQP QP2Q2).[W(

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QPQP

QP<sup>2</sup>Q

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q³),W(p³]

